

*OUR 2nd ANNUAL EARTH DAY CELEBRATION!*

## **CLIMATE CHANGE: SOLVING THE PROBLEM FROM THE INSIDE OUT**

### **Mount Saint Mary House of Prayer**

1651 US Highway 22  
Watchung, NJ 07069  
[www.msmhope.org](http://www.msmhope.org)

To register call  
908-753-2091  
or online  
[www.msmhope.org](http://www.msmhope.org)



Starting with a deeper understanding of our own relationship with God's Creation, both environmental scientists will discuss the problem, consequences, possible political and technical responses to this global reality.

**Wed., Apr. 21, 7-9 p.m.**  
(\$20-\$30 as you are able)

#### **Presenters:**

**Gerard McKenna**



*Gerard McKenna  
is an environmental  
scientist and teacher.*

**Dr. Harry Allen**



*Dr. Harry Allen is an  
environmental  
scientist.*



# Opening Prayer

- Lord of All Hopefulness, Lord of All Joy
- <https://www.youtube.com/watch?v=b8mti7VL3gg>



# Management of Evening

- 7 – 7:20pm Introductions, Prayer, Introduction of Problem – Jerry
- 7:20 – 7:40pm What is Climate Change and the dangers, including video/ pictures-Harry
- 7:40 – 7:50 Short Q&A discussion about above – Harry and Jerry
- 7:50 – 8:10pm How can Society fix this? Harry
- 8:10 – 8:25pm Group discussion
- 8:25 – 8:50pm Personal change in way we see things – Jerry
- 8:50 – 9:00pm Closing Prayer (Song?)

# Introduction to Harry L. Allen PhD

- Public School Philadelphia, PA
- Gettysburg College, Liberal Arts, Biology and Chemistry.
- Rutgers University, Environmental Science, MS and PhD
- USEPA Storm and Combined Sewer R&D
- USEPA Region 2, Water Quality Management Planning
- USEPA Environmental Response Team
- Worked on oil and chemical emergencies and hazardous waste site cleanups in all 50 States and 18 foreign countries for over 30 years



# Understanding Climate Change

- What is it and is it real?
- Why is it happening?
- Why should we believe it?
- How is it being evidenced today? In the future?
- What can we do about it?
- Will we be able to sustain our response?
- I think this short video is a nice introduction.
- <https://www.youtube.com/watch?v=ifrHogDujXw>



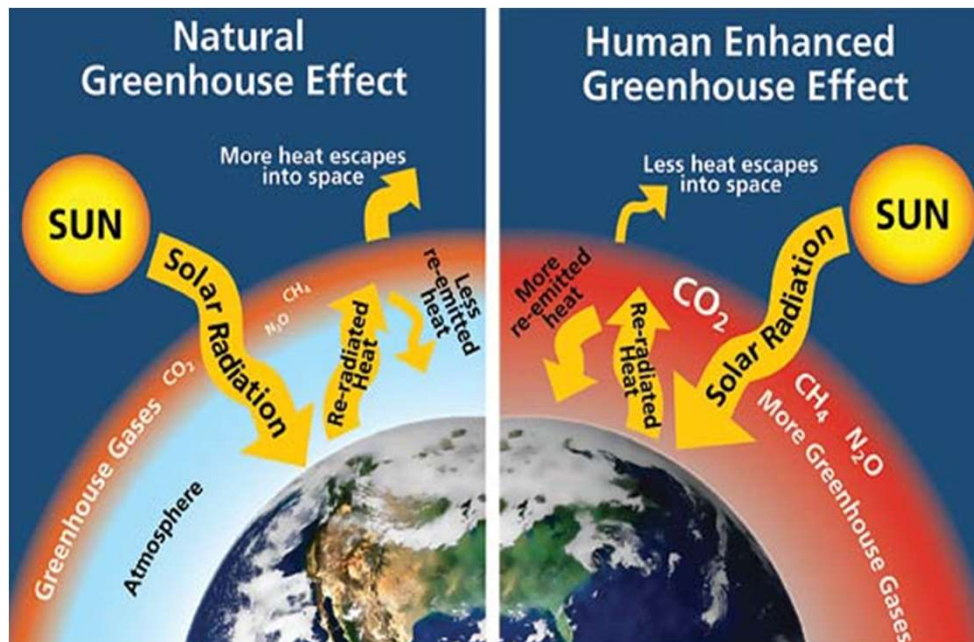
# INTRODUCTION TO THE PROBLEM

As he set foot on the moon, Neil Armstrong said, “That’s one small step for a man, one giant leap for mankind.” That small step opened the future to space exploration.

- In Ray Bradbury’s short story “A Sound of Thunder,” a time traveler steps on a butterfly, changing our present. This story inspired the movie, “The Butterfly Effect”. Both tales deal with changing the future dramatically by meddling with the past in apparently insignificant ways.
- Major changes often evolve one step at a time, often with unpredictable consequences.
- Decisions made by individuals anywhere in the world today can have a cascading effect, which may become global.
- Our interference with the natural world has led to one calamity after another and may have brought us to the brink of global catastrophe.



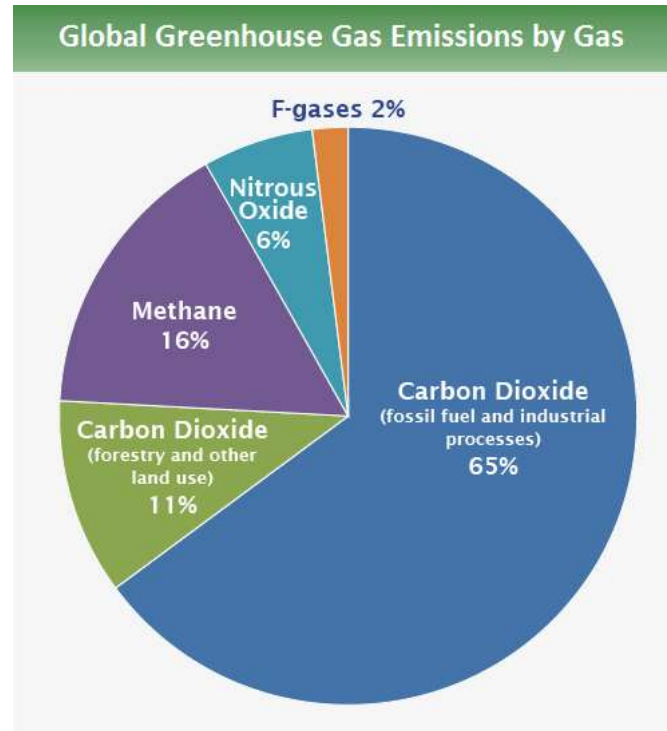
## A Little More Detail on Global Climate Change: What Causes the Earth to Heat Up?



Earth needs to dissipate excess heat into space.  
Greenhouse gases trap the heat.



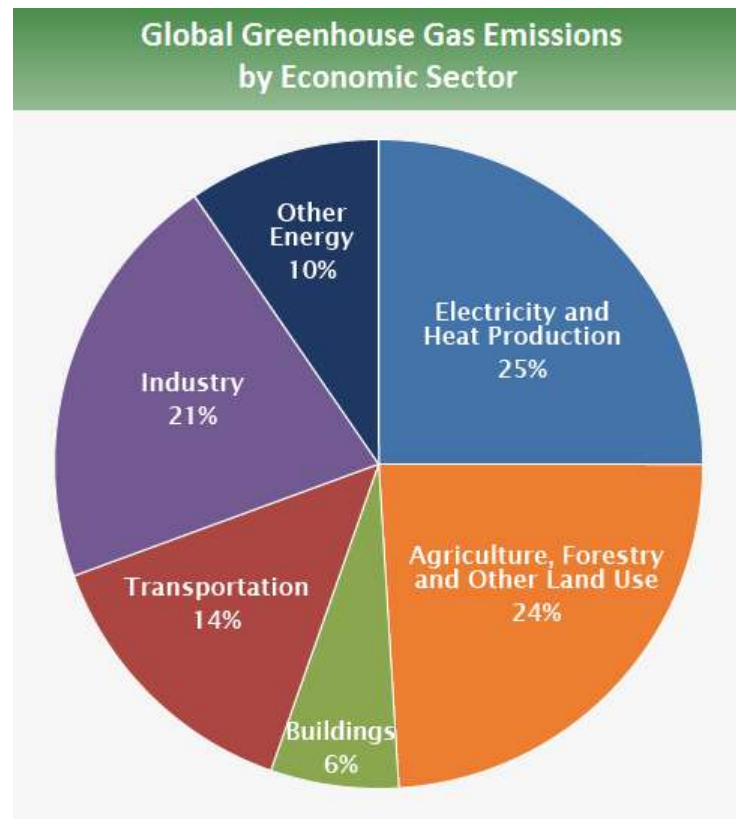
# Relative Contribution of Greenhouse Gases



Note: F-Gases are fluorinated organic compounds with important modern uses



# Contributors of Greenhouse Gases



The world's fleet of container ships uses about [300 million tons](#) of very dirty fuel producing nearly 3 percent of the world's carbon dioxide emissions.



The international maritime shipping industry has a carbon footprint about the size of Germany's.

<https://youtu.be/TS2cszwTTcg>



# Climate Deniers are Good People Too, But Can We Really Deny Climate Change?

The Denial Argument:

The Earth is large and natural events add lots  
of CO<sub>2</sub> to the atmosphere. What possible  
impact can human activity have?

Answer: A Lot!



# Flooding Due to Poor Watershed Management



The River Thames in England



## The Aral Sea Destroyed by Poor Irrigation Practices and Soil Mismanagement



From 1960 to 2010



# What are the Symptoms of Climate Change Already Here?

- It's warm: Annual average temperature is about 1 degree Celsius ( $1^{\circ}\text{C}$ ) hotter than average and we are already locked into at least another 0.5 degrees of warming. We will be hard pressed to avoid exceeding the limit of  $2^{\circ}\text{C}$ .
- We are sure: 97% of scientists agree that human activity contributes to global warming.
- It's bad:  $1^{\circ}\text{C}$  of warming has resulted in devastating impacts across the planet. Rising heat increases water vapor in the atmosphere leading to storms with increasing accumulated energy and moisture loading.
- Flooding and rising sea level which have already displaced 1 million from coastal areas. Millions more will need to move in coming years.

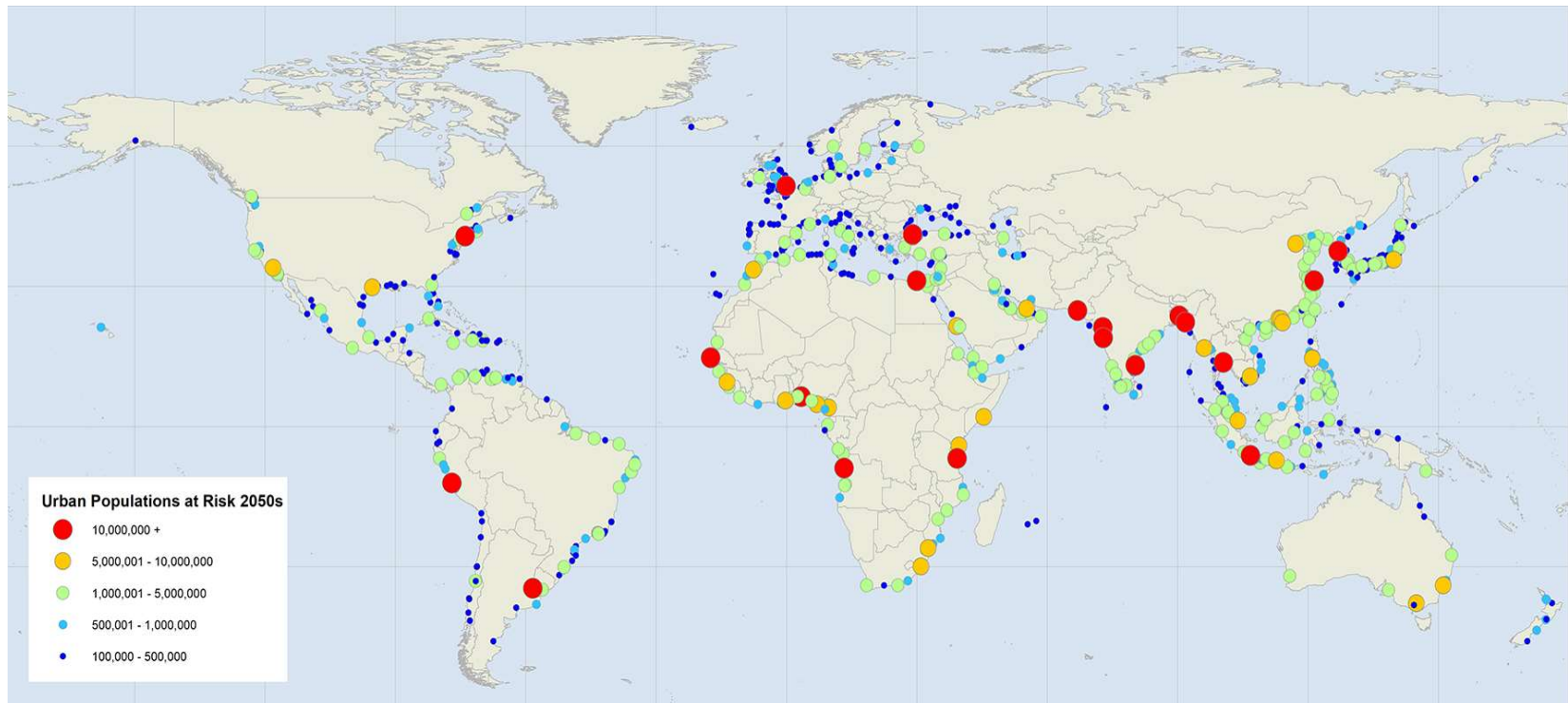


# Climate Change Affects Vulnerable Populations Differently

- Climate change and man-induced global warming threatens all of us especially the vulnerable poor and those living in low-lying coastal areas of the world.
- Wealthy nations may be able to stave off some of the consequences of more intense weather events and sea level rise with technology.



## Diverse Populations Vulnerable to Rising Sea Levels



The Earth's Climate is Changing  
What does it mean?



Low-Lying Areas are Most Affected by Rising Sea Level  
Even where you might not expect it.



England's Lake District



# 21<sup>st</sup> Conference Of Parties

## *The World Takes on Global Warming*



COP21 - Excerpt from "[\*Two weeks in 10 Minutes\*](#)"

COP 21 had a successful conclusion with the universal agreement, but how will the world enforce this agreement?



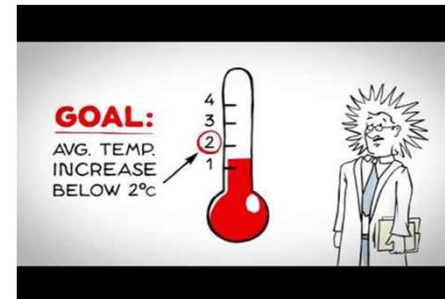
- The United States signed on in 2015 under President Obama, but President Trump, after assuming office, announced the US intended to leave the Paris Accord because of its potential impact on our economy.

**Main Purpose of COP 21:** to achieve a legally binding universal agreement on the goal to limit global temperature increase to 1.5 to 2°C (2.7 to 3.6°F) above pre-industrial levels.

- **Challenge:** Balance the long-term goal and the short term need for economic growth.
- **Controversy:** Debate as to where responsibility lies for climate change, and how to apportion the emissions cuts and the costs of moving forward.



PARIS2015  
UN CLIMATE CHANGE CONFERENCE  
COP21•CMP11



**What is COP21 and why does it matter?**



# Addressing Climate Change by Striving to Meet COP21 Objectives

- We need to act creatively to achieve a resilient and sustainable harmony with our planet.
- We believe that God brought us forth from the primal elements and blessed us with memory, reason, and skill.
- God has already given us the ability to solve this problem, if we can muster the wisdom to do so.



# We Must Learn to Live and Grow in Harmony with the Earth?



By being good stewards of Earth's resources, we can balance Environmental, Economic, and Social needs to ensure a Sustainable world for all.



## Taking responsibility for sustainability and resilience

We can work with nature rather than against it. Natural forces can be used to preserve natural resources while meeting our basic needs.

- The Sun – Heat, ultraviolet light, and wind energies are exploitable.
- Gravity – Potential and kinetic energy can be managed.
- The Sea – Tides, currents, and biological potential are limitless. The ability of the oceans to absorb carbon dioxide is limited.
- Geothermal – The lithosphere is a massive source of energy, which we have hardly begun to appreciate.
- Soil – The Soil contains 3 times more carbon dioxide than the atmosphere. Management of soil carbon may be a practical solution.



# How Can Governments Address Climate Change?

- Keep carbon in the ground! Minimize CO<sub>2</sub> emissions to the atmosphere.
- Do not subsidize fossil fuel, and divest of fossil fuels as practicable.
- No federal funds for new fossil fuel infrastructure
- Counter false narratives supporting the status quo
- Help build a new, more equitable low-carbon economy
- Invest in renewable energy
- Promote investment in community-based sustainability solutions
- Support communities confronting the impacts of climate change and building climate solutions for an economy free of fossil fuels.
- Promote Resilient Practices for Agriculture and Livestock Management



# What can Individuals Do?

- Forego fossil fuels
- Improve energy efficiency of dwellings
- Move closer to work, and work more from home, if possible
- Consume less unnecessary “stuff.”
- Be efficient with energy, food, and water at home.
- Unplug unused electrical devices.
- Eat smart, Go vegetarian?



# How can Society as a Whole Fix This

- Stop deforestation by offering products that don't rely on monoculture.
- Develop future fuels based on renewable sources.
- Explore the ethics and possible consequences of using technology to control climate. Experiment Earth.
- Pressure governments into limiting emissions
- Run local and national campaigns targeting leaders
- Capitalize big regional and national events, like climate negotiations and economic summits



# Ensuring A Sustainable Future Requires Us to Increase Supply and Reduce Demand

- Modern planning usually addresses increased supply rather than reduced demand. A sustainable plan addresses both.
- Reducing demand may require redistributing population
  - Cluster development in cities and suburbs
  - Support rural (farming) communities to encourage preserving agriculture land
- Reducing the per capita resource demand
  - Efficient energy production and distribution
  - Mass transit, smart cars
  - Encourage plant-based diets
  - Reduce, Reuse, Recycle consumer goods



# In a Just World, All People Have a Right to a Decent Life

- Non-Government Organizations like Rotary International and Doctors Without Borders are providing safe water and eradicating disease.
- Technology has produced low-cost toilets and clean cooking stoves to improve the health of the rural poor.
- Green energy and LED lighting is lengthening the day in the third world, which has been shown to increase productivity.
- Micro-loans are growing small businesses, especially women in poor countries allowing people to rise out of poverty.



# Tools for Improving Quality of Human Life



Improved  
Sanitation  
Composting Toilet



Vaccinations



Micro-loans for Small  
Businesses



# The Solar Power and LED Lighting Revolution



Light up the Night for Almost Nothing



# Consequences of Global Prosperity

- Achieving Harmony with the Environment will be More Difficult.
- Reducing global poverty will raise economies and as people prosper they will demand more resources.
- The Earth does not have the resources to support global prosperity by current standards.
- We either change those standards or the rich and powerful will condemn the rest of the world to a marginal existence.
- Managing Global Climate Change is Critical if we are to Environmental Justice for All.
- Sustainability must be factored into all climate solutions.



Q & A and discussion



# SOLVING THE PROBLEM FROM THE INSIDE OUT

- Lessons from Covid 19
- Changing our views about God, ourselves and where we stand with the rest of creation
- “Laudato Si” – Integral Ecology
- Need transformation at a deeper level, a change of consciousness, a whole new way of being on the earth
- Developing a sense of humility

What have we learned: about ourselves; about God;  
about how we fit into creation

- We believe that God created the heaven and the Earth.
- God called us to have dominion over the earth and cultivate it and guard it.
- We are called to be stewards, not destroyers, of earth's resources and to use those resources rightly and in the service of others.
- We can't be know-it-alls, and the consequences of our actions are beyond our control. The story of the forbidden tree of all knowledge in Eden reminds us of that fact.

# How are we called?

## Our Moral Duty to the Earth

Message from the Papal Encyclical

*Laudato si'*

On care for our common home

Pope Francis

“Laudato si’, mi’ Signore” – “Praise be to you, my Lord”. In the words of this beautiful canticle, Saint Francis of Assisi reminds us that our common home is like a sister with whom we share our life and a beautiful mother who opens her arms to embrace us. “Praise be to you, my Lord, through our Sister, Mother Earth, who sustains and governs us, and who produces various fruit with coloured flowers and herbs”.

## Other Communities of Faith Agree with Pope Francis

- The Episcopal Church, for example, supports atoning for the sins of environmental degradation and resisting climate change in these words.
- “In Jesus, God so loved the whole world. We follow Jesus, so we love the world God loves. Concerned for the global climate emergency, drawing on diverse approaches for our diverse contexts, we commit to form and restore loving, liberating, life-giving relationships with all of Creation.”

# Forming a new humility towards Creation

- Reverence God
- Accept our role as a co-Creator
- Seek direction from the wisdom of the earth
- Endure and accompany those persecuted
- Acknowledge harm
- Renounce entitlement
- Let go of the arrogance and narcissism of the anthropocentric world
- Honor and learn from the traditions of the earth

# Forming a new humility towards Creation cont'd

- Cultivate silence and listen with your heart to all creation
- Never ridicule, reject or render invisible any parts of creation
- Raise our voice to communicate clearly for our common home
- In all times and places, live in reverence

# Group Discussion

- Why isn't there more concern about the impending Climate Crisis?
- What can you do better as an individual to help prevent a Climate Crisis?

# Closing Prayer

- Song about earth? John Rutter's "For the Beauty of the Earth."
- <https://www.youtube.com/watch?v=-0qQyW0W0Rw>